

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLN. NO.: 10/634,561 CONFIRMATION NO.: 6018
APPLICANT: Michael J. Britton TC/ART UNIT: 2416
FILED: August 5, 2003 EXAMINER: Chery, Dady
TITLE: METHOD FOR MITIGATING COLLISIONS ON A DATA CHANNEL
UPON REQUEST FROM A SUBSCRIBER

REMARKS TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

This reply is being filed electronically

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the Final Office Action mailed October 15, 2009 and Advisory Action mailed December 15, 2009, concerning the above-identified application in furtherance of the Notice of Appeal filed on February 8, 2010. An extension of time and fee are filed concurrently herewith. Claims 1-6 remain pending in the application, a copy of which can be found in Applicant's response of December 1, 2009.

REMARKS

Rejection of Claims 1-4, 7-9, 12-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over US 6078568 (Wright) in view of US 5740167 (Taketsugu) and further in view of US 6947748 (Li)

Applicant cancelled claims 7-9, 12-13, and 15-20 in the After Final Amendment. Therefore, the rejection of claims 7-9, 12-13, and 15-20 is moot in view of the cancellation.

Applicant respectfully traverses the rejection of claims 1-4. Reconsideration is respectfully requested.

Applicant respectfully submits that the combination of Wright, Taketsugu, and Li does not show or suggest all the claim limitations as set forth in independent claim 1. For example, independent claim 1 recites “at a subscriber...during the step of transmitting, tracking a number of collisions on the data channel until the number of collisions reaches a threshold value indicating that the subscriber is unable to acquire sufficient bandwidth on the data channel due to collisions with other transmitting subscribers on the data channel... when the number of collisions reaches the threshold value thereby indicating that the data channel is fully utilized, transmitting a reassignment request to move to a new data channel” which is not taught or suggested in the combination of Wright, Taketsugu, and Li.

The Office Action on page 3 states that “Regarding claim 1, Wright discloses a method (fig.4 and Fig. 21) comprising the steps of: ...during the step of transmitting, tracking a number of collisions (Fig. 21, 132, where the calculating of collision rates is considered as the tracking number of collisions) on the data channel until the number of collisions reaches a threshold value indicating that the subscriber is unable to acquire sufficient bandwidth on the data channel due to collisions with other transmitting subscribers on the data channel (Col. 4, lines 52 - lines 68 Col.6, lines 34 -39, Col. 7, lines 5 -29 and Col. 24, lines 62 -68, where the collision rate exceeds a desire level is considered as the number collision reaches a threshold value, and identifying a congested multiple access so that the traffic may routed to less heavily utilized channel is considered as the subscriber is unable to acquire sufficient bandwidth on the data channel due to collisions with other transmitting subscribers).” This analogy is, however, a mischaracterization of Wright.

Wright is directed towards a dynamic access control method for a multiple access communication network. Wright’s subscriber device wishing to transmit a data packet on the reverse channel receives the broadcast dynamic access control parameter from a base station on the network, generates an access control limit value and only attempts to transmit the data packet if the access control limit value satisfies the received dynamic access control parameter. See Wright, Abstract. In Wright, if a subscriber device wants to transmit data to the base station, then the subscriber device first has to obtain the latest value of Ptx and then transmit the data if certain conditions are satisfied. The value of Ptx is calculated by the base station based on the success

and collision rate of a reverse channel. Therefore, in Wright “tracking the number of collisions on a data channel” is done before “the step of transmitting.” In contrast, Applicant’s claim 1 clearly recites “during the step of transmitting, tracking a number of collisions on the data channel.” Therefore, Wright does not show or suggest “...during the step of transmitting, tracking a number of collisions on the data channel...” as recited by Applicant’s claim 1.

The Office Action on pages 3 and 4 further states that “Regarding claim 1... Wright fails to explicitly mention when the number of collisions reaches the threshold value, transmitting a reassignment request to move to a new data channel. However, Taketsugu teaches a method to select a new data channel when the packet collisions exceed a critical value as described the instant application (Fig. 5 and Col. 12, lines 36 - 39,).” This analogy is, however, a mischaracterization of Taketsugu.

Taketsugu also fails to teach or suggest the above limitation. Taketsugu discloses determining whether an error rate in a packet exceeds a threshold value at a base station and if the error rate exceeds a critical value, the base station sends a “select new channel signal” to the subscribers. See Taketsugu, col. 5, lines 1-3 and col. 12, lines 36-39.

Further, the Office Action on pages 3-5 states that “Regarding claim 1... Wright in combination with Taketsugu differs from the instant invention by teaching the above steps have done in the base station instead of the subscriber. However, Li teaches method where a subscriber measures channel and interference information subcarriers based these measurements the subscriber selects a set of channel to communicate with the base station (Col. 2, lines 12 - 19). This is substantially the same function as discloses by the instant application.” This analogy is also a mischaracterization.

Li teaches measurement of channel and interference information (for example, SINR) by a subscriber for each subcarrier pilot symbol periods and data traffic periods. Li, at best, teaches monitoring the reception of the pilot symbols periods and data traffic periods and measuring the inter-cell and intra-cell interference of each subcarrier cluster. First of all, Li does not teach measuring a number of collisions, Li teaches measuring SINR. Further, Li does not teach measuring SINR during the step of transmitting. Li teaches measuring interference before the step of transmitting. See Li, col. 2, lines 12-19 and col. 5, line 53 - col. 6, line 33. Therefore, Li does not overcome the deficiencies of Wright and Taketsugu. And the combination of Wright,

Taketsugu, and Li does not teach “at a subscriber... during the step of transmitting, tracking a number of collisions on the data channel...” as recited by Applicant’s claim 1.

Moreover, Li teaches that a subscriber reports the SINR value for each subcarrier cluster to the base station. Then the base station selects one or more clusters for the subscriber based on this feedback and additional information available at the base station. The base station communicates the selected cluster to the subscriber. Li further teaches that from time to time the subscriber can report its updated clusters selection and its associated SINRs to the base station. In response, the base station performs reselection and informs the subscriber about the new cluster allocation. However, Li’s subscriber’s reporting its updated clusters selection and its associated SINRs to the base station occur as a result of subscriber movement or change in interference. See Li, col. 6, lines 55-67. Whereas, Applicant’s transmitting a re-assignment request occurs when the number of collisions reaches a threshold value. None of the references show or suggest transmitting a re-assignment request or reporting the updated cluster selection when the number of collisions reaches a threshold value. Therefore, the combination of Wright, Taketsugu, and Li does not teach “at a subscriber... when the number of collisions reaches the threshold value, transmitting a reassignment request to move to a new data channel” as recited by Applicant’s claim 1.

For the above reasons, Applicant submits that independent claim 1 is not obvious in view of the combination of Wright, Taketsugu, and Li and therefore that the rejection of claim 1 under 35 USC 103(a) should be withdrawn. Applicant requests that claim 1 now be passed to allowance.

Dependent claims 2-4 depend from, and include all the limitations of independent claim 1. Therefore, Applicant respectfully requests the reconsideration of dependent claims 2-4 and requests withdrawal of the rejection.

Rejection of Claims 5, 6, 10, 11, and 14 under 35 U.S.C. § 103(a) as being unpatentable over US 6078568 (Wright) in view of US 5740167 (Taketsugu) and further in view of US 6947748 (Li) and US 6222850 (Johnson)

Applicant cancelled claims 10, 11, and 14 in the After Final Amendment. Therefore, the rejection of claims 10, 11, and 14 is moot in view of the cancellation.

As mentioned above, Applicant respectfully submits that Wright, Taketsugu, and Li do not disclose “at a subscriber... during the step of transmitting, tracking a number of collisions on the data channel...” and “at a subscriber... when the number of collisions reaches the threshold value, transmitting a reassignment request to move to a new data channel.” Johnson fails to overcome the deficiency of Wright, Taketsugu, and Li in that Johnson also does not show or suggest the above-mentioned limitation.

Johnson describes a method for calculating the percentage of data packets that were transmitted with collisions over a defined time interval, typically 4 seconds. See Johnson, col. 4, lines 62-64. Applicant’s dependent claims 5 and 6 provide further limitations to the threshold value recited in independent claim 1. Johnson does not disclose tracking the number of collisions until the number of collisions reaches a threshold value. Instead, Johnson discloses calculating the number of collisions over a time interval. Thus, Johnson fails to disclose such limitations.

None of the cited references taken individually or in combination teach or suggest that which is claimed by Applicant’s invention. Claims 5 and 6 depend on what are believed to be allowable independent claim 1 and thus are in condition for allowance. Reconsideration and withdrawal of the rejection of claim 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Wright in view of Taketsugu and further in view of Li and Johnson is respectfully requested.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

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Motorola, Inc.
1303 East Algonquin Road
IL01 – 3rd Floor
Schaumburg, Illinois 60196
Customer Number: 24273

By: /Barbara R. Doutre/
Barbara R. Doutre
Attorney for Applicant
Registration No. 39,505
Tel. No. 954-723-6449
Fax No. 847-576-3750
Email: docketing.us@motorola.com